Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) Heat-sensitive element comprising

(a) an optionally pretreated substrate

(b) a positive working heat-sensitive coating comprising

(i) at least 40 wt.-%, based on the dry weight of the coating, of at least one polymer soluble in aqueous alkaline developer selected from novolak resins, functionalized novolak resins, polyvinylphenol resins, polyvinyl cresols and poly(meth)acrylates with phenolic and/or sulfonamide side groups,

(ii) 0.1 - 20 wt.-%, based on the dry weight of the coating, of at least one (C_4-C_{20} alkyl)phenol novolak resin insoluble in aqueous alkaline developer, and

(iii) optionally at least one further component selected from polymer particles, surfactants, contrast dyes and pigments, inorganic fillers, antioxidants, print-out dyes, ~~carboxylic acid derivatives of cellulose polymers,~~ plasticizers and substances capable of absorbing radiation of a wavelength from the range of 650 to 1,300 nm and converting it into heat,

wherein the heat-sensitive coating comprises a carboxylic acid derivative of a cellulose polymer.

2. (original) Heat-sensitive element according to claim 1, wherein component (i) is a novolak resin or a mixture of novolak resins.

3. (previously presented) Heat-sensitive element according to claim 1 wherein component (i) is a cresol novolak, a cresol-phenol novolak or a mixture thereof.

4. (previously presented) Heat-sensitive element according to claim 1 wherein component (ii) is a butylphenol novolak or an octylphenol novolak.

5. (cancelled)

6. (previously presented) Heat-sensitive element according to claim 1 wherein the at least one polymer soluble in aqueous alkaline developer is present in an amount of 50 to 95 wt.-%, based on the dry weight of the coating.

7. (previously presented) Heat-sensitive element according to claim 1 wherein the at least one (C_4-C_{20} alkyl)phenol novolak resin insoluble in aqueous alkaline developer is present in an amount of 0.5 to 12 wt.-%, based on the dry weight of the coating.

8. (previously presented) Heat-sensitive element according to claim 1 wherein the element is a lithographic printing plate precursor.

9. (original) Heat-sensitive element according to claim 8, wherein the substrate is an aluminum substrate which prior to being coated with the heat-sensitive coating was subjected to at least one treatment selected from (a) mechanical and/or chemical graining, (b) anodizing and (c) hydrophilizing.

10. (previously presented) Heat-sensitive element according to claim 8 wherein the dry weight of the coating is 0.5 to 4.0 g/m².

11. (previously presented) Process for the production of a heat-sensitive element as defined in claims 1 comprising:

(a) providing an optionally pretreated substrate,

(b) applying a solution comprising components (i), (ii) and optionally (iii) as defined in claim 1,
and

(c) drying.

12. (currently amended) Process for the production of a heat-sensitive element ~~as defined in Claim 1~~ comprising:

a) an optionally pretreated substrate

(b) a positive working heat-sensitive coating comprising

(i) at least 40 wt.-%, based on the dry weight of the coating, of at least one polymer soluble in aqueous alkaline developer selected from novolak resins, functionalized novolak resins, polyvinylphenol resins, polyvinyl cresols and poly(meth)acrylates with phenolic and/or sulfonamide side groups,

(ii) 0.1 - 20 wt.-%, based on the dry weight of the coating, of at least one (C_4-C_{20} alkyl)phenol novolak resin insoluble in aqueous alkaline developer, and

(iii) optionally at least one further component selected from polymer particles, surfactants, contrast dyes and pigments, inorganic fillers, antioxidants, print-out dyes, carboxylic acid derivatives of cellulose polymers, plasticizers and substances capable of absorbing radiation of a wavelength from the range of 650 to 1,300 nm and converting it into heat,

said process comprising:

~~(a)~~ providing an optionally pretreated substrate,

~~(b)~~ applying a solution comprising component (i) and optionally (iii) as defined ~~in claim 1~~ above,

~~(c)~~ drying,

~~(d)~~ applying a solution comprising component (ii) and optionally (iii) as defined ~~in claim 1~~ above, and

~~(e)~~ drying.

13.(previously presented) Process for imaging a heat-sensitive element comprising:

(a) providing a heat-sensitive element as defined in claim 1,

(b) image-wise exposure of the element to IR radiation or image-wise direct heating and

(c) removing the exposed or directly heated areas of the coating with an aqueous alkaline developer.

14. (currently amended) Heat-sensitive composition comprising

(a) one or more organic solvents,

(b) at least 40 wt.-%, based on the total solids content, of at least one polymer soluble in aqueous alkaline developer selected from novolak

resins, functionalized novolak resins, polyvinylphenol resins, polyvinyl cresols and poly(meth)acrylates with phenolic and/or sulfonamide side groups,

(c) 0.1 to 20 wt.-%, based on the total solids content, of at least one (C_4-C_{20} alkyl)phenol novolak resin insoluble in aqueous alkaline developer, and

(d) optionally at least one further component selected from polymer particles, surfactants, contrast dyes and pigments, inorganic fillers, antioxidants, print-out dyes, plasticizers, ~~carboxylic acid derivatives of cellulose polymers~~ and substances capable of absorbing radiation of a wavelength from the range of 650 to 1,300 nm and converting it into heat,

wherein the heat-sensitive composition comprises a carboxylic acid derivative of a cellulose polymer.

15. (new) Heat-sensitive element comprising

(a) an optionally pretreated substrate

(b) a positive working heat-sensitive coating comprising

(i) at least 40 wt.-%, based on the dry weight of the coating, of at least one polymer soluble in aqueous alkaline developer selected from functionalized novolak resins, polyvinylphenol resins, polyvinyl cresols and poly(meth)acrylates with phenolic and/or sulfonamide side groups,

(ii) 0.1 - 20 wt.-%, based on the dry weight of the coating, of at least one (C_4-C_{20} alkyl)phenol novolak resin insoluble in aqueous alkaline developer, and

(iii) optionally at least one further component selected from polymer particles, surfactants, contrast dyes and pigments, inorganic fillers, antioxidants, print-out dyes, carboxylic acid derivatives of cellulose polymers, plasticizers and substances capable of absorbing radiation of a wavelength from the range of 650 to 1,300 nm and converting it into heat.

16. (new) Process for the production of a heat-sensitive element as defined in claim 15 comprising:

(a) providing an optionally pretreated substrate,

(b) applying a solution comprising components (i), (ii) and optionally (iii) as defined in claim 15,

and

(c) drying.

17. (new) Process for the production of a heat-sensitive element comprising:

(a) an optionally pretreated substrate

(b) a positive working heat-sensitive coating comprising

(i) at least 40 wt.-%, based on the dry weight of the coating, of at least one polymer soluble in aqueous alkaline developer selected from novolak resins, functionalized novolak resins, polyvinylphenol resins, polyvinyl cresols and poly(meth)acrylates with phenolic and/or sulfonamide side groups,

(ii) 0.1 - 20 wt.-%, based on the dry weight of the coating, of at least one (C_4-C_{20} alkyl)phenol novolak resin insoluble in aqueous alkaline developer, and

(iii) optionally at least one further component selected from polymer particles, surfactants, contrast dyes and pigments, inorganic fillers, antioxidants, print-out dyes, carboxylic acid derivatives of cellulose polymers, plasticizers and substances capable of absorbing radiation of a wavelength from the range of 650 to 1,300 nm and converting it into heat,

said process comprising:

providing an optionally pretreated substrate,

applying a solution comprising components (i), (ii) and optionally (iii) as defined above,

drying, and

conditioning the resulting heat-sensitive element for 60 to 96 hours.